## U.S. AMLR Program and National Science Foundation

# 2012-2013 Weekly Field Reports Copacabana, King George Island

Volume 15 January 21, 2013

#### **Science Report:**

1. Penguins: The Adélie penguin chick census was carried out at Copa on Tuesday (1/22) and at Point Thomas on Wednesday (1/23). All of the crèched chicks were counted at both places, and then compared to their respective nest censuses from October. The Copa census yielded 1,110 crèched chicks and the Point Thomas census 1,691, equating to 0.54 and 0.43 chicks crèched per nest, respectively. These values are about half of the 25-year mean reproductive success for Adélie penguins at these sites, but are similar to results from the other two heavy snow years, 2007-08 and 2009-10.

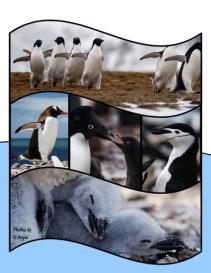
Diet sampling of Adélie penguins continued on Friday (1/25), with five more adults from the Castle Rocks colonies selected. Analysis of this week's Adélie penguin diet samples showed a dramatic change in krill size compared to last week's sample. This week only 19% of the krill (*Euphausia superba*) were in the juvenile size-range (35 mm or less in length), 35% were adult males, and 46% were adult females. No fish or otoliths were found in any of the Adélie penguin samples this week.

There are still no signs of the two missing Adélie penguins with satellite tags (PTTs) from the initial deployment. One of these birds was last reported to be entering the Weddell Sea, which supports our belief that it lost its chicks & is now fattening up in preparation for its molt.

Gentoo penguin reproductive success remains steady with 81 out of 100 nests still with chicks, 50 of which have crèched. Known-age gentoo penguin nests stand at 50, 30 of which have crèched chicks. Banding of gentoo penguin known-age chicks continues with a total of 50 chicks banded. Another partial gentoo penguin chick census was conducted in the remainder of the hill colonies where the chicks are past peak crèche.

Gentoo penguin diet sampling was conducted on Monday (1/21). Five birds from the Copa Beach colonies were selected. These diet samples were similar to previous diet samples with a higher percentage of juvenile krill (60%). Twenty-one percent were male krill while the remaining 19% were female. One sample yielded only 32 whole krill, but contained fish as well as nine otoliths. Fish was also found in one other sample.

Three gentoo penguin PTTs that were deployed the previous week (1/14) were all recovered on Tuesday (1/22). One gentoo penguin PTT from the deployment on Friday (1/18) was recovered on the hut skua territory, clearly gleaned from a carcass, as the feathers and skin were still attached. The bird was last seen alive at its nest on Friday (1/25). The other PTT deployed that day was retrieved on Sunday (1/27).



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Breeding chinstrap penguins on Copa Beach stand at four nests: three nests with two chicks and one with just one chick.

2. Skuas: Daily checks of the Copa skua breeding territories continue. There are currently five active brown skua nests at Copa, all with chicks. These five territories combine for a total of seven chicks, all of which are banded as of this week. The one nest with one egg failed this week. No new breeding activity was observed.

Point Thomas skua routes were completed on Wednesday (1/23) and Saturday/Sunday (1/26 and 1/27). There are two active brown skua nests, both of which have chicks. The two nests combine for a total of three chicks, two of which are banded. No new breeding activity was observed.

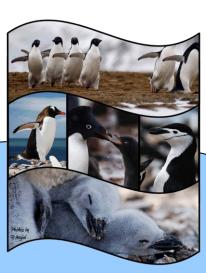
The Demay and Patelnia skua routes were cancelled on Thursday (1/24) due to high winds and poorly timed tides.

Back Country skua routes were completed on Saturday (1/26). There are still returning territory holders being resighted for the first time, though there is still no breeding activity. Skua fecal samples are now being collected on territories, regardless of breeding status, in hopes of ascertaining what comprises the skuas' diets this late in the season.

- 3. Sheathbills: Two unbanded sheathbills have still been observed near Copa Rock and appear to be attending the old nest site used last year. Their nest was not checked for eggs this week.
- 4. Whales & Seals: Humpback whales were seen on five days this week, the highest count being two animals on both Tuesday (1/22) and Saturday (1/26). One of the whales on Tuesday (1/22) was observed breaching, the first sighting of this behavior this year.

Due to high winds and tides, only a partial Demay and Patelnia seal census was carried out on Thursday (1/24), covering the Flats and Block Point beaches. This count yielded 21 elephant seals of juvenile/unknown sex and 13 fur seals. The Copa and Point Thomas seal censuses, carried out on Sunday (1/27), yielded 69 juvenile/unknown sex elephant seals, two fur seals, and one Weddell seal.

No leopard seals were observed this week.



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#### Weekly Weather:

The week's weather was slightly windier than past weeks, with winds most days near 15 to 20 knots. Temperatures fluctuated between freezing and the upper thirties (F) for most of the week. Saturday (1/26) proved to be a beautiful "Coffee on the Deck" morning with light wind, sunshine and tolerable temperatures, although the wind returned with clouds for the rest of the day.

#### **Camp Activities:**

Some cleaning and bleaching was done on a sunny Saturday morning (1/26), in preparation for camp closing in a month.

The 2012-13 Copa Field Team:

Matt Henschen, Co-Field Team Leader Brette Soucie, Co-Field Team Leader Caitlyn Bishop Ana Bertoldi Wayne Trivelpiece, Co-PI

